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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,609	02/11/2002	Ernst Rytz	01-732	5092

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EXAMINER

ASHLEY, BOYER DOLINGER

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,609

Applicant(s)

RYTZ ET AL.

Examiner

Boyer D. Ashley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to applicant's amendment filed 11/30/04, wherein claims 1, 3, 4, 7, and 8 were amended.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated Gardner, U.S. Patent 5,749,279.

Gardner discloses the same invention as claimed including: a compensation cylinder (26 or 46/48) capable of supporting a ram, wherein the cylinder is hydraulically connected to an opposed cylinder (26 or 46/48, see Figure 4).

It should be noted that the V-ring guide has not been positively recited in the claims and therefore, not part of the invention. Hence, the phrase "the V-ring cylinder" only refers to the cylinder upon which the punch is connected. Moreover, it should be noted that the expression "V-ring cylinder" does not imply any structure other than that of cylinder because the V-ring portion of the expression refers only to the punch guide not the cylinder, that is, it only is used to denote the cylinder not to describe any specific structure of the cylinder. Therefore, Gardner clearly discloses the referenced cylinder in the claims.

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As to claim 3, the device of Gardner clearly discloses in Figures 1 and 2 that the cylinders (46/48/26) all include pistons (54) firmly connected to the ram by piston rods (58).

As to claim 5, the device of Gardner discloses a cylinder arranged on a crosshead (see Figure 1).

As to claim 6, the device of Gardner discloses the use of a main cylinder (e.g., 42).

As to claim 7, the effective cross-sectional area of main cylinder (42) is clearly shown as greater than that of the compensation cylinders (e.g. 46/48).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner in view of Ejima et al., U.S. Patent 5,673,601.

Gardner discloses the invention substantially as claimed except for the use of four compensation cylinder; however, Gardner and Ejima et al. both disclose that it is old and well known in the art use to use multiple compensation cylinders for the purpose of reducing noise and inaccurate punchings. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use four compensation cylinders with the device of Gardner in order to increase the effects of the

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single cylinder. Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use four compensation cylinders with the device of Gardner in order more effectively control noise, because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner.

Gardner discloses the invention substantially as claimed except for the effective cross-sectional area of the compensation pistons being equal to an effective cross-sectional area of the piston of V-ring cylinder; however, at the time the invention was, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use similar effective cross-sectional areas for the both the compensation piston and the v-ring cylinder in order to more accurately control the movements of the cylinders because applicant has not disclosed that the effective cross-sectional areas provide any advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either effective cross-sectional areas taught by Gardner and the claimed equal effective cross-sectional areas because both effective cross-sectional areas perform the same function of accurately controlling the movements of the both the punch and die. Therefore, it would have been an obvious matter of design choice to modify Gardner to obtain the invention of claim 4.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner in view of Ejima et al., U.S. Patent 5,673,601.

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Gardner discloses the use of logic valves because applicant has not disclosed any specific definition for the "logic" valves and all hydraulic cylinder valves are designed to be "logical" in that they separate control the amount of hydraulic fluid flowing through the valves.

In the alternative, even if it is argued that Gardner lacks the logic valves, Ejima et al. discloses that it is old and well known in the art use to valves that are controllable by a control for the purpose of maintaining the desired pressures in the cylinders. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use "logic" valves with the device of Gardner in order to accurate control the pressure in the cylinders.

8. Claims 1-6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (see pages 1-5), hereinafter AAPA, in view of Gardner, U.S. Patent 5,749,279, or Ejima et al., U.S. Patent 5,673,601.

AAPA discloses the invention substantially as claimed, including a press plate with a v-ring cylinder, v-ring, a blanking punch, counterholder and compensation cylinder. AAPA lacks the v-ring cylinder and compensation cylinder being hydraulically connected; however, Gardner and Ejima et al. both disclose the use of piston-cylinder presses with counterholders and compensation cylinders, wherein the upper cylinder and lower cylinders are hydraulically connected for the purpose of providing more control over the punching operation.

As to claim 2, the modified device of AAPA discloses the invention substantially as claimed except for the use of four compensation cylinder; however, Gardner and

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Ejima et al. both disclose that it is old and well known in the art use to use multiple compensation cylinders for the purpose of reducing noise and inaccurate punchings. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use four compensation cylinders with the modified device of AAPA in order to increase the effects of the single cylinder. Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use four compensation cylinders with the modified device of AAPA in order more effectively control noise, because it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

As to claim 3, the modified device of AAPA discloses the invention substantially as claimed including the compensation cylinder having a piston and piston rod for connecting to the ram. However, even if it is argued that the modified device of AAPA lacks the specific compensation cylinder connection by use of piston and piston rod; Gardner discloses that it is old and well known in the art use to use compensation cylinders with pistons and piston rods for connecting the compensation cylinder to the ram of the device for the purpose of reducing noise and inaccurate punchings. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use compensation cylinders having pistons and piston rods with the modified device of AAPA in order to reduce the noise and inaccurate punchings.

As to claim 4, the modified device of AAPA discloses the invention substantially as claimed except for the effective cross-sectional area of the compensation pistons being equal to an effective cross-sectional area of the piston of V-ring cylinder;

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however, at the time the invention was, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use similar effective cross-sectional areas for the both the compensation piston and the v-ring cylinder in order to more accurately control the movements of the cylinders because applicant has not disclosed that the effective cross-sectional areas provide any advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either effective cross-sectional areas taught by the modified device of AAPA and the claimed equal effective cross-sectional areas because both effective cross-sectional areas perform the same function of accurately controlling the movements of the both the punch and die. Therefore, it would have been an obvious matter of design choice to modify the modified device of AAPA to obtain the invention of claim 4.

As to claim 5, the modified device of AAPA discloses a cylinder arranged on a crosshead (see pages 1-5).

As to claim 6, the modified device of AAPA discloses the use of a main cylinder.

As to claim 7, the modified device of AAPA discloses the invention substantially as claimed except for the piston of the main cylinder having an effective cross-sectional area which is greater than that of the compensation piston; however, at the time the invention was, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a cross section of the main cylinder greater than that of the compensation cylinder in order to more accurately control the movements of the cylinders because applicant has not disclosed that the effective cross-sectional areas

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provide any advantage, is used for a particular purpose, or solves a stated problem.

One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either effective cross-sectional areas taught by the modified device of AAPA and the claimed greater effective cross-sectional areas because both effective cross-sectional areas perform the same function of accurately controlling the movements of the both the punch and die. Therefore, it would have been an obvious matter of design choice to modify the modified device of AAPA to obtain the invention of claim 7.

As to claim 8, the modified device of Gardner discloses the use of logic valves because applicant has not disclosed any specific definition for the "logic" valves and all hydraulic cylinder valves are designed to be "logical" in that they separate control the amount of hydraulic fluid flowing through the valves.

In the alternative, even if it is argued that the modified device of AAPA lacks the logic valves, Ejima et al. discloses that it is old and well known in the art use to valves that are controllable by a control for the purpose of maintaining the desired pressures in the cylinders. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use "logic" valves with the modified device of AAPA in order to accurate control the pressure in the cylinders.

Response to Arguments

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

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Applicant contends that Gardner lacks the direct fluid communication between the v-ring cylinder and the compensation cylinder. However, it should be noted that applicant has not claimed any specific connection, only that they are connected. In this case, the cylinders of Gardner are connected together as shown in Figure 4.

10. For the reasons above, the grounds of rejection are deemed proper.

Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art references are cited to show similar devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boyer D. Ashley whose telephone number is 571-272-4502. The examiner can normally be reached on Monday-Thursday 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Boyer D. Ashley
Primary Examiner
Art Unit 3724

BDA
February 17, 2005